

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

Applicant's or agent's file reference p02002	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/NO03/00011	International filing date ( <i>day/month/year</i> ) 15.01.2003	Priority date ( <i>day/month/year</i> ) 16.01.2002
International Patent Classification (IPC) or both national classification and IPC E21B33/064		
Applicant NORSK HYDRO ASA et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of    sheets.

3. This report contains indications relating to the following items:

- I    ☒ Basis of the opinion
- II   ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V   ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  03.07.2003	Date of completion of this report  17.11.2003
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Manolache, I  Telephone No. +49 89 2399-2065



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/NO03/00011**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-8 as originally filed

**Claims, Numbers**

1-5 as originally filed

**Drawings, Sheets**

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/NO03/00011**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-5
	No: Claims	
Inventive step (IS)	Yes: Claims	1-5
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-5
	No: Claims	

2. Citations and explanations

**see separate sheet**

**V - Reasoned statement under Art. 35 (2).**

- V1 Due to linguistic deficiencies the wording of claim 1 is not clear and the claim does not meet the requirements of Art. 6 PCT. Under the same article are to be considered some of the remaining dependant claims, as well as part of the disclosure.
- V2 As far as claim 1 can be understood, the wording of said claim has been interpreted as follows:  
"Riser control device, particularly designed to be used in connection with spools or horizontal production trees (12) used in oil and gas installations in subsea locations, characterised in that within a housing (1, 2) are provided a pair of rams (6) radially movable in opposed direction for isolating the well and a pair of shear blades (7) radially movable in opposed direction for cutting off an intervention string or the like, the rams (6) and the blades (7) being simultaneously driven by means of a vertical actuator (8, 9, 23) contained within the housing (1, 2)."
- V3 Interpreting the claim with respect to Point V2, following are pointed out:  
Document D1: US-A-1 839 394 discloses a device able to isolate the annular between a working string and a surrounding housing by the means of hydraulically actuated rams. It could be therefore considered that these features are to be identified in claim 1 as the sealing means  
Document D2: US-A 6 244 336 discloses a double shearing rams system designed for use in a standard ram-type blowout preventer. The features of this device could be identified as the corresponding features of claim 1 able to clear out the well by shearing the string contained in the annular, preceding the operation of sealing.
- V4 As the purpose of the invention is to isolate the entire well at the level of a subsea location, regardless if a working string is present or not, the combination of the features of D1 and D2, even ignoring the different way in which each of the system is actuated, still can not suggest the features shear blades and rams, simultaneously driven by the means of an vertical actuator.  
It requires therefore inventive consideration to arrive at the claimed solution. Consequently, the subject-matter of claim 1 is new and inventive as set out in Art.33 (2) and (3) PCT.